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Andrew K. Krumel

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10/19/2006

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EXAMINER

GOLD, AVI M

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,599

Applicant(s)

KRUMEL, ANDREW K.

Examiner

Avi Gold

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the amendment filed on July 22, 2006. Claims 1 and 4 were amended. Claims 1-58 are pending.

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11, 17-31, 33-38, 41-43, and 48-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong, U.S. Patent No. 6,700,891, further in view of Sheafor et al., U.S. Patent No. 6,223,242.

Wong teaches the invention substantially as claimed including a method and apparatus for filtering a packet using data contained within the packet (see abstract).

As to claim 1, Wong teaches a method for filtering packets received from a network using a programmable logic device-based packet filtering system ("PLD system"), comprising the steps of:

operating the PLD system in accordance with first configuration data, wherein in accordance with the first configuration data, the PLD system receives packets including

at least first packets from the network, processes the first packets in accordance with a filtering operation, and conditionally transmits the processes first packets to an electronic connection coupled to the PLD system, wherein the PLD system processes the first packets in accordance with a first set of filtering rules based on the first configuration data (col. 2, lines 35-45, Wong discloses filtering a packet if an access list exists for that packet);

receiving second configuration data for the PLD system, wherein the second configuration data is selectively received by the PLD system based on identification information for the PLD system, wherein the second configuration data are different from the first configuration data (col. 2, lines 46-52, Wong discloses multiple configurations in the access list);

programming the second configuration into the PLD system (col. 2, lines 35-52);
and

operating the PLD system in accordance with the second configuration data, wherein, in accordance with the second configuration data, the PLD system receives packets including at least second packets from the network, processes the second packets in accordance with a filtering operation, and conditionally transmits the processed second packets to the electronic connection coupled to the PLD system, wherein the PLD system processes the second packets in accordance with a second set of filtering rules based on the second configuration data (col. 3, lines 16-23, Wong discloses filtering packets in different ways based on the access list filtering criteria).

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Wong fails to teach the limitation further including the use of a physical, user-activated switch/button interface physically connected to the PLD system, wherein in response to user activation of the switch/button interface the PLD system selectively filters packets or blocks packet transmission.

However, Sheafor teaches a linearly expandable self-routing crossbar switch and associated method (see abstract). Sheafor teaches the use of adjusting a physical switch to change settings (col. 4, lines 54-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong in view of Sheafor to use a physical, user-activated switch/button interface physically connected to the PLD system, wherein in response to user activation of the switch/button interface the PLD system selectively filters packets or blocks packet transmission. One would be motivated to do so because it allows for a simple and easy way to activate the filtering or blocking of packets.

Regarding claim 2, Wong teaches the method of claim 1, further comprising the step of, after the second configuration data are received by the PLD system, saving the second configuration data in non-volatile memory of the system (col. 3, lines 6-9, Wong discloses a switching element for filtering a packet including memory).

Regarding claim 3, Wong teaches the method of claim 2, wherein the non-volatile memory comprises Flash memory, electrically erasable and programmable read only memory or battery-backed-up random access memory (col. 3, lines 6-9).

Regarding claim 4, Wong teaches a method for filtering packets received from a network using a programmable logic device-based packet filtering system ("PLD system"), wherein the PLD system is one of a plurality of PLD systems coupled to receive packets from the network, comprising the steps of:

operating the PLD system in accordance with first configuration data, wherein in accordance with the first configuration data, the PLD system receives packets including at least first packets from the network, processes the first packets in accordance with a filtering operation, and conditionally transmits the processed first packets to an electronic connection coupled to the PLD system, wherein the PLD system processes the first packets in accordance with a first set of filtering rules based on the first configuration data (col. 2, lines 35-45);

receiving second configuration data for the PLD system, wherein the second configuration data is selectively received by the PLD system via one or more second packets from a computing system based on identification information for the PLD system, wherein the second configuration data are different from the first configuration data (col. 2, lines 46-52);

programming the second configuration data into the PLD system (col. 2, lines 35-52); and

operating the PLD system in accordance with the second configuration data, wherein, in accordance with the second configuration data, the PLD system receives packets including at least third packets from the network, processes the third packets in accordance with a filtering operation, and conditionally transmits the processed third

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packets to the electronic connection coupled to the PLD system, wherein the PLD system processes the third packets in accordance with a second set of filtering rules based on the second configuration data (col. 3, lines 15-23);

wherein after receiving each of the one or more second packets, the PLD system sends at least a fourth packet to the computing system over the network, wherein each fourth packet acknowledges receipt of a corresponding one of the one or more second packets (col. 2, lines 35-52).

Wong fails to teach the limitation further including the use of a physical, user-activated switch/button interface physically connected to the PLD system, wherein in response to user activation of the switch/button interface the PLD system selectively filters packets or blocks packet transmission.

However, Sheafor teaches the use of adjusting a physical switch to change settings (col. 4, lines 54-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong in view of Sheafor to use a physical, user-activated switch/button interface physically connected to the PLD system, wherein in response to user activation of the switch/button interface the PLD system selectively filters packets or blocks packet transmission. One would be motivated to do so because it allows for a simple and easy way to activate the filtering or blocking of packets.

Regarding claim 5, Wong teaches the method of claim 4, wherein after receiving each of the one or more second packets, the PLD system saves second configuration

data from the one or more second packets in non-volatile memory coupled to the PLD system (col. 3, lines 6-9).

Regarding claim 6, Wong teaches the method of claim 5, wherein the PLD system saves the second configuration data in the non-volatile memory coupled to the PLD system from each of the one or more second packets prior to sending each fourth packet (col. 3, lines 6-9).

Regarding claim 7, Wong teaches the method of claim 5, wherein, after receipt by the computing system of a fourth packet that acknowledges receipt by the PLD system of a final second packet, the computing system sends at least a fifth packet to the PLD system, wherein, in response to the fifth packet, the PLD system saves one or more data indicating that all of the second configuration data has been received and stored in the non-volatile memory (col. 2, line 35 – col. 3, lines 39).

Regarding claim 8, Wong teaches the method of claim 4, wherein the second configuration data is loaded into the PLD system in response to a user command from a user (col. 6, lines 25-34, Wong discloses a user entering filtering criteria).

Regarding claim 9, Wong teaches the method of claim 8, wherein the user command comprises a command input by a switch (col. 6, lines 25-34).

Regarding claim 10, Wong teaches the method of claim 9, wherein the switch comprises a physical switch on the PLD system (col. 6, lines 25-34).

Regarding claim 11, Wong teaches the method of claim 8, wherein the user command comprises a command entered via the computing system (col. 6, lines 25-34).

Regarding claim 17, Wong teaches the method of claim 4, wherein the PLD system processes packets sent from the computing system in order to determine if the packets sent from the computing system contain one or more commands to which the PLD system is responsive (col. 2, line 35 – col. 3, line 39).

Regarding claim 18, Wong teaches the method of claim 17, wherein the PLD system extracts one or more commands to which the PLD system is responsive from the packets sent from the computing system (col. 2, lines 46-52, Wong discloses parsing the packet).

Regarding claim 19, Wong teaches the method of claim 19, wherein the step of receiving second configuration data for the PLD system sent from the computing system is selectively performed based on identification information for the PLD system provided from the PLD system to the computing system (col. 2, line 35 – col. 3, line 39).

Regarding claim 20, Wong teaches the method of claim 19, wherein identification information is used to determine an identification of the second configuration data that are to be received by the PLD system (col. 3, lines 15-23).

Regarding claim 21, Wong teaches the method of claim 1, wherein the second configuration data are stored in a location remote from the PLD system (col. 3, lines 6-9).

Regarding claim 22, Wong teaches the method of claim 21, wherein the location comprises storage coupled to the computing system (col. 3, lines 6-9).

Regarding claim 23, Wong teaches the method of claim 21, wherein the location comprises storage on a second network, wherein the computing system accesses the storage via the second network (col. 3, lines 6-9).

Regarding claim 24, Wong teaches the method of claim 23, wherein the location is identified by an address of a node on the second network (col. 3, lines 6-9).

Regarding claim 25, Wong teaches the method of claim 23, wherein the second network comprises an Internet network (col. 3, lines 6-9).

Regarding claim 26, Wong teaches the method of claim 25, wherein information that is indicative of the location comprises a URL (col. 3, lines 6-9).

Regarding claim 27, Wong teaches the method of claim 14, wherein the plurality of PLD systems collectively respond to a plurality of commands that include one or more first commands to which the PLD system responds and also include one or more second commands to which the PLD system responds (col. 2, line 35 – col. 3, line 39).

Regarding claim 28, Wong teaches the method of claim 27, wherein the first commands comprise core commands to which at least a second PLD system also responds (col. 2, line 35 – col. 3, line 39).

Regarding claim 29, Wong teaches the method of claim 28, wherein the second commands comprise custom commands to which the second PLD system does not respond (col. 2, line 35 – col. 3, line 39).

Regarding claim 30, Wong teaches the method of claim 1, wherein the network comprises a local area network (col. 2, line 35 – col. 3, line 39).

Regarding claim 31, Wong teaches the method of claim 1, wherein the network comprises an Ethernet-based network (col. 2, line 35 – col. 3, line 39).

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Regarding claim 33, Wong teaches the method of claim 4, wherein at least certain of the first, second or third packets comprise TCP packets (col. 2, line 35 – col. 3, line 39).

Regarding claim 34, Wong teaches the method of claim 4, wherein at least certain of the first, second or third packets comprise Ethernet packets (col. 2, line 35 – col. 3, line 39).

Regarding claim 35, Wong teaches the method of claim 4, wherein at least certain of the first, second or third packets comprise link layer packets (col. 2, line 35 – col. 3, line 39).

Regarding claim 36, Wong teaches the method of claim 4, wherein at least certain of the first, second or third packets comprise network layer packets (col. 2, line 35 – col. 3, line 39).

Regarding claim 37, Wong teaches the method of claim 4, wherein at least certain of the first, second or third packets comprise IP packets (col. 2, line 35 – col. 3, line 39).

Regarding claim 38, Wong teaches the method of claim 4, wherein at least certain of the first, second or third packets comprise transport layer packets (col. 2, line 35 – col. 3, line 39).

Regarding claim 41, Wong teaches the method of claim 4, wherein at least certain of the packets sent by the PLD system comprise packets having a predetermined source address that are directed to a first predetermined port (col. 2, line 35 – col. 3, line 39).

Regarding claim 42, Wong teaches the method of claim 1, wherein the PLD system does not implement a TCP/IP stack (col. 2, line 35 – col. 3, line 39).

Regarding claim 43, Wong teaches the method of claim 1, wherein the PLD system comprises an FPGA (col. 2, line 35 – col. 3, line 39).

Regarding claim 48, Wong teaches the method of claim 4, wherein the PLD system includes a first logic unit that processes packets sent by the computing system, wherein the first logic unit identifies one or more commands in the packets sent by the computing system (col. 2, line 35 – col. 3, line 39).

Regarding claim 49, Wong teaches the method of claim 48, wherein the PLD system includes one or more second logic units coupled to the first logic unit that carries

out one or more operations that correspond to the one or more commands (col. 2, line 35 – col. 3, line 39).

Regarding claim 50, Wong teaches the method of claim 49, wherein the PLD system includes one or more third logic units, wherein the third logic units carry out one or more logic operations that correspond to packets that the PLD system transmits to the computing system (col. 2, line 35 – col. 3, line 39).

Regarding claim 51, Wong teaches the method of claim 4, wherein the PLD system includes first and second logic portions, wherein the first logic portion operates to communicate packets in accordance with a protocol with the computing system, wherein the second logic portion operates to carry out a process that does not comprise communicating packets in accordance with the protocol with the computing system (col. 2, line 35 – col. 3, line 39).

Regarding claim 52, Wong teaches the method of claim 4, wherein the computing system operates in response to software that is transmitted to the computing system from the PLD system (col. 2, line 35 – col. 3, line 39).

Regarding claim 53, Wong teaches the method of claim 4, wherein the computing system operates in response to software that is stored in a location identified by a packet from the PLD system (col. 2, line 35 – col. 3, line 39).

Regarding claim 54, Wong teaches the method of claim 53, wherein the location comprises a storage location on a second network coupled to the computing system (col. 2, line 35 – col. 3, line 39).

Regarding claim 55, Wong teaches the method of claim 54, wherein the location is identified by a network address or URL (col. 2, line 35 – col. 3, line 39).

Regarding claim 56, Wong teaches the method of claim 53, wherein the location is determined from an identifier for the PLD system (col. 2, line 35 – col. 3, line 39).

Regarding claim 57, Wong teaches the method of claim 4, wherein, after the PLD system operates in accordance with the first configuration data, in response to a user input the PLD system reconfigures to operate to receive packets in accordance with the second configuration data (col. 2, line 35 – col. 3, line 39).

Regarding claim 58, Wong teaches the method of claim 1, wherein the PLD system comprises programmable logic having at least a first logic portion and a second logic portion, wherein, in response to loading of the second configuration data, the second logic portion is reconfigured and the first logic portion is not reconfigured (col. 2, line 35 – col. 3, line 39).

3. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong and Sheafor further in view of Jung et al., U.S. Patent No. 5,745,229.

Wong teaches the invention substantially as claimed including a method and apparatus for filtering a packet using data contained within the packet (see abstract). Sheafor teaches the invention substantially as claimed including a linearly expandable self-routing crossbar switch and associated method (see abstract).

As to claim 12, Wong and Sheafor teach the method of claim 1.

Wong and Sheafor fail to teach the limitation further including wherein one or more display devices provide visual feedback of the status of the PLD system.

However, Jung teaches an apparatus for determining optical characteristics of an object (see abstract). Jung teaches the use of LCD and LEDs for display purposes (col. 6, lines 52-62).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong and Sheafor in view of Jung to use a visual display to show status. One would be motivated to do so because it allows the user to see the status of the PLD system.

Regarding claim 13, Jung teaches the method of claim 12, wherein the one or more display devices comprise one or more LEDs (col. 6, lines 52-62).

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Regarding claim 14, Jung teaches the method of claim 12, wherein the one or more display devices comprise a liquid crystal display (col. 6, lines 52-62).

As to claim 15, Wong and Sheafor teach the method of claim 1.

Wong and Sheafor fail to teach the limitation further including the PLD system providing audio feedback indicative of the status of the PLD system.

However, Jung teaches the use of audio feedback to guide an operator (col. 3, lines 46-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong and Sheafor in view of Jung to use audio feedback with the PLD system. One would be motivated to do so because it allows the user to hear the status of the PLD system.

Regarding claim 16, Jung teaches the method of claim 12, wherein at least one LED indicates that the step of loading the second configuration data into the PLD system is in process (col. 6, lines 52-62)

4. Claims 32, 39, 40, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong and Sheafor further in view of Fairchild et al., U.S. Patent No. 6,343,320.

As to claim 32, Wong and Sheafor teach the method of claim 1.

Wong and Sheafor fail to teach the limitation further including at least certain of the first, second or third packets comprise UDP packets.

However, Fairchild teaches a method and system for consolidating management state information of one or more devices attached to or participating in a network, and sending the consolidated information to one or more management servers (see abstract). Fairchild teaches the use of UDP packets (col. 11, lines 46-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong and Sheafor in view of Fairchild to use UDP packets. One would be motivated to do so because they are known packets for data transfer.

Regarding claim 39, Fairchild teaches the method of claim 1, wherein at least certain of the first, second or third packets comprise IPX packets (col. 6, lines 20-25, Fairchild discloses the use of IPX)

Regarding claim 40, Fairchild teaches the method of claim 1, wherein at least certain of the packets sent by the computing system comprise broadcast packets having a predetermined address that are directed to a first predetermined port (col. 11, lines 46-49, Fairfax disclose the use of broadcast packets)

As to claims 44, Wong and Sheafor teach the method of claim 1.

Wong and Sheafor fail to teach the limitation further including the PLD system comprises an Internet security system.

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However, Fairchild teaches the use of security for data found on the Internet (col. 5, lines 8-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong and Sheafor in view of Fairchild to use an Internet security system. One would be motivated to do so because it only allows cleared packets to be transferred.

Regarding claim 44, Fairchild teaches the method of claim 44, wherein the Internet security system comprises a firewall system (col. 10, lines 25-28, Fairchild discloses the use of a firewall).

5. Claims 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong and Sheafor further in view of Zintel, U.S. Patent No. 6,779,004.

As to claim 46, Wong and Sheafor teach the method of claim 1.

Wong and Sheafor fail to teach the limitation further including the PLD system comprising a device selected from the group consisting of a PDA, a mobile telephone, a portable computer, a game system, a household appliance, a video recording system and a paging device.

However, Zintel teaches adapting host-peripheral connectivity devices and services for access in a peer networking connectivity model (see abstract). Zintel

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teaches the use of a digital assistant, cell phone, VCR, game consoles, home appliances, and a pager (col. 7, lines 24-29, col. 45, lines 30-44, 64-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong and Sheafor in view of Zintel to use many different devices. One would be motivated to do so because it allows for many devices to interact over a network.

As to claim 47, Wong and Sheafor teach the method of claim 1.

Wong and Sheafor fail to teach the limitation further including wherein the information identifying the one or more commands in accordance with the protocol to which the PLD system responds comprises XML code.

However, Zintel teaches the use of XML (col. 2, lines 64-67, col. 3, lines 1-8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong and Sheafor in view of Zintel to use XML code. One would be motivated to do so because it is a known and useful markup language.

Double Patenting

6. Claims 1-58 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-45, 47, 49-59, and 62 of copending Application No. 09/746,519. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both

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methods for configuring a programmable logic device-based packet filtering system operation to filter packets.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

7. Applicant's arguments with respect to claims 1-58 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,363,519 to Levi et al.

U.S. Pat. No. 6,151,625 to Swales et al.

U.S. Pat. No. 6,092,123 to Steffan et al.

U.S. Pat. No. 6,175,839 to Takao et al.

U.S. Pat. No. 5,343,471 to Cassagnol

U.S. Pat. No. 6,326,806 to Fallside et al.

U.S. Pat. No. 5,974,547 to Klimenko

U.S. Pat. No. 6,374,318 to Hayes et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002.

The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Avi Gold

Patent Examiner

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AMG


YVES DALENCOURT
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100